

Ser. No. 10/002,643
Response to Office Action of 30 June 2005
Atty Docket 117163.00031

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AMENDMENTS TO THE CLAIMS

Listing of Claims:

1. (currently amended) A device for influencing cell-growth mechanisms in vessels, in particular blood vessels, of a human or animal body, comprising:

an excitation device for producing stimulation energy; and

an implant, wherein the implant is adapted to be placed in a blood vessel and is further adapted to contactlessly receive stimulation energy from the excitation device and produce stimulation currents in a region to be treated of the vessel, wherein the stimulation currents have a frequency and/or a modulation frequency in the range of frequencies at which distribution of secondary messenger substances controlling cell growth in the cells of the vessel is influenced and wherein the implant is a stent.

2. (cancelled)

3. (previously presented) The device of claim 1, wherein the frequency and/or the modulation frequency of the stimulation currents is in the range of frequencies at which the distribution of cyclic adenosine monophosphate (cAMP) in the cells of the vessel is inhibited or stimulated.

4. (previously presented) The device of claim 1, wherein:
the stimulation currents have frequency and/or modulation frequency in the range of frequencies at which distribution of secondary messenger substances producing cell growth in the smooth muscle cells and/or the endothelium cells and/or the fibroblasts of a vessel is inhibited or stimulated.

5. (previously presented) The device of claim 1, wherein
the stimulation currents in the region to be treated of the vessel have a frequency and/or a modulation frequency of up to 200 Hz.

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6. (previously presented) The device of claim 1, wherein the excitation device comprises a time control device for producing a reduction in the level of stimulation intensity and/or the frequency of stimulation.
7. (cancelled)
8. (previously presented) The device of claim 1, wherein the excitation device comprises an induction device for producing at least one local magnetic alternating field in the treatment region of the vessel.
9. (previously presented) The device of claim 8, wherein the induction device comprises at least one horseshoe-shaped electromagnet.
10. (previously presented) The device of claim 9, wherein the excitation device further comprises a positioning device for positioning at least one pole of the electromagnet with respect to the body.
11. (cancelled)
12. (previously presented) The device of claim 1, wherein the excitation device comprises an induction device for inductively coupling the stimulation energy into the implant.
13. (previously presented) The device of claim 1, wherein the excitation device comprises a transmitter device for coupling the stimulation energy in the form of electromagnetic oscillations into the implant, the implant comprising an antenna element.
14. (withdrawn) The device of claim 13, further comprising a device for focusing the electromagnetic oscillations in the region of the implant.
- 15-27. (cancelled)

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28. (previously presented) The device of claim 4, wherein the frequency and/or the modulation frequency of the stimulation currents is in the range of frequencies at which the distribution of cyclic adenosine monophosphate (cAMP) in the cells of the vessel is inhibited or stimulated.

29. (previously presented) The device of claim 3, wherein the excitation device produces stimulation currents having frequency and/or modulation frequency in the range of frequencies at which distribution of secondary messenger substances producing cell growth in the smooth muscle cells and/or the endothelium cells and/or the fibroblasts of a vessel is inhibited or stimulated.

30. (previously presented) The device of claim 28, wherein the excitation device produces stimulation currents having frequency and/or modulation frequency in the range of frequencies at which distribution of secondary messenger substances producing cell growth in the smooth muscle cells and/or the endothelium cells and/or the fibroblasts of a vessel is inhibited or stimulated.

31. (previously presented) The device of claim 5, wherein the stimulation currents in the region to be treated of the vessel have a frequency and/or a modulation frequency in the range of from 10 to 100 Hz.

32. (previously presented) The device of claim 30, wherein the stimulation currents in the region to be treated of the vessel have a frequency and/or a modulation frequency of up to 200 Hz.

33. (previously presented) The device of claim 32, wherein the stimulation currents in the region to be treated of the vessel have a frequency and/or a modulation frequency in the range of from 10 to 100 Hz.

34. (previously presented) The device of claim 6, wherein the reduction is stepwise.

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35. (previously presented) The device of claim 6, wherein the reduction is continuous.

36. (previously presented) The device of claim 33, wherein the excitation device comprises a time control device for producing a reduction in the level of stimulation intensity and/or the frequency of stimulation.

37. (previously presented) The device of claim 36, wherein the reduction is stepwise.

38. (previously presented) The device of claim 36, wherein the reduction is continuous.

39-56. (cancelled)

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